

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

1-13 (cancelled).

14. (currently amended) The machine as claimed in claim ~~13~~21, wherein said stator has a laminated core, and wherein the discrete coolant areas are formed between laminates of the laminated core of said stator.

15. (currently amended) The machine as claimed in claim ~~12~~14, wherein the discrete coolant areas are formed as axial cooling channels.

16. (previously presented) The machine as claimed in claim 15, further comprising flow paths for air cooling.

17. (cancelled)

18. (currently amended) The machine as claimed in claim ~~17~~15, wherein said stator has a laminated core, and wherein the discrete coolant areas are formed between laminates of the laminated core of said stator.

19. (currently amended) The machine as claimed in claim 21, wherein the discrete coolant areas are formed as axial cooling channels.

20. (currently amended) The machine as claimed in claim ~~19~~21, further comprising flow paths for air cooling.

21. (currently amended) An electrical machine, comprising:

a rotor rotably mounted;

a stator associated with said rotor in a stationary position and containing a stator winding;

and

a cooling device, cooling at least parts of said stator, including

a refrigeration unit comprising at least one cold head having a condenser area with at least one cold surface; and

a closed cooling line system being thermally coupled to the cold surface of said refrigeration unit in said condenser area and containing;

a coolant supply line at one axial end of the stator winding and a coolant return line at the other axial end of the stator winding;

a coolant thermally coupled to the cold surface of the cold head, and

said cooling line system thermally coupling said cold head to the heat generating parts of said stator to be cooled with the stator winding, having discrete coolant areas associated with the heat generating parts of said stator to be cooled and being thermally conductively connected over a large area to the stator parts to be cooled;

wherein the heat generating parts of said stator are located at a geodetic lower level than the cold surface of the cold head,

and in which the coolant is circulated by a thermosiphon effect with boiling and vaporizing, the coolant being heated or partially vaporized in the discrete coolant areas and being flowing by natural convection without mechanically pumping.